

A REMARKABLE DISCOVERY affords conclusive evidence that the ancient Egyptian god Horus was not in fact the sun-god history contends, but rather a lunar theophany of the waxing crescent (in a schematized lunation). The other gods of the Egyptian pantheon prove, in turn, to represent the successive lunar phases.

Myths of the various conflicts between Horus and Set involve destruction of the Eye of Horus (*wadjet*). In one myth Set tore the eye into six pieces which he scattered to the wind. The *Ennead* or Council of Deities directed Thoth to recover the parts and restore the eye.

As Horus represents waxing crescent (which emerges on day 3 of the lunation), Thoth embodies waxing half-moon (occurring on day 9 in the cycle) – consecutive *focal* phases of the rising arc of the lunation, separated by six nights. The *eye* of Horus, in this respect, reflects the first *visible* phase of the new lunation – the first two nights of the cycle remaining dark without any moon in the sky – while the six pieces of the eye represent the six spectres of the concave quarter of the rising arc which fuse to form the half-moon (completing the reign of the concave spectres, before the throne of heaven is relinquished to the gods of the convex spectres of the gibbous quarter of the waxing arc).

The six portions of the figurative eye were subsequently adapted as measures by Egyptian mathematicians – each part designating a signal fraction employed in the measure of volume (the *hekat* fractions). The portion of the cornea nearest the nose represented $\frac{1}{2}$ and was associated with the sense of smell. The pupil signifying $\frac{1}{4}$ represented sight. The eyebrow added $\frac{1}{8}$, inclined to thought.

The outer portion of the cornea comprising $\frac{1}{16}$, appears drawn to the sense of hearing. The falcon flange beneath the eye (toward the ear) designated $\frac{1}{32}$, directing attention to the sense of taste. While the figurative leg depending from the eye (toward the nose) comprised the fraction $\frac{1}{64}$, partial to the sense of touch – as in ‘touching down’.

Addition of the *hekat* fractions, however, presented an inexplicable discrepancy: restoration of the Eye of Horus from the recovery of all the parts leaves $\frac{1}{64}$ unaccounted for [$\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \frac{1}{64} = \frac{63}{64}$]. In the myth, the missing portion was ultimately supplied by Thoth, the god of just measure.

There is something more to this equation, it turns out, than meets the eye of scholarly consensus. When applied to the length of the Egyptian month (30 days) the product of the assembled fractions relinquishes the length of the mean lunation, *to within a minute* [$\frac{63}{64} \times 30 = 29.53125$]. The length of the average lunation is currently calculated at 29.530588 days; the difference between the modern and the putative Egyptian measures amounting to 57.1968 seconds.

Somehow the Egyptians appear to have recognized that the difference between the calendrical expedient of their 30-day month, and the actual length of the mean lunation, comprised a 64th of the month!

The Eye of Horus, in other words, embodied two distinct *lunar measures*: the Egyptian month of 30 days (discrete); and the mean lunation (anatomized), which the Egyptians apparently calculated to extend 29 days 12 hours 45 minutes (our contemporary calculation 29 days 12 hours 44 minutes 3 seconds).

The leg symbol for the fraction $\frac{1}{64}$, moreover, denoted ‘rest’ and ‘healing’. ‘Rest’, it now becomes clear, because the terminal fraction of the lunar equation required doubling – or ‘*resting* at that point in the equation’, to count it again – in order to complete the month and ‘heal’ the shattered Eye of Horus fully.

It bears further notice that the terminal phase of the schematized lunation – waning crescent, represented by the Egyptian god Osiris – embodied a duplex count when two successive lunations were configured alternately as male (29-day) and female (30-day) months: the terminal phase counting as day 29 in the first and day 30 in the second.

The waning crescent of the 30-day month, therefore, was to be equated with the missing 64th in the *hekat* equation, supplied by Thoth – a categorically *underworld* completion (in that it embodied an interval which could not claim to reside in the lunation, the actual source of time: because $63/64$ of the 30-day month exhausted the lunation). An echo from the catacombs of the underworld goddess, Hecate...

The equation of the *hekat* fractions – with denominators doubling – also prefigures the celebrated Paradox of Zeno (Zeno of Elea, *fl. ca* 460 BC): a sequence of successive half-measures extending to infinity without ever reaching their terminus (unity).

The eyes of Horus have long been thought to figure the sun and moon, yet my research challenges the established reading. As the figure below illustrates, the Eye of Horus mirroring a second Eye of Ra, accords perfectly with twin full moons presiding over their respective arcs of lunation: Horus as waxing crescent representing the first visible phase of the waxing arc (which culminates with first full moon); and Ra as second full moon, the first phase of the waning half of the lunation.

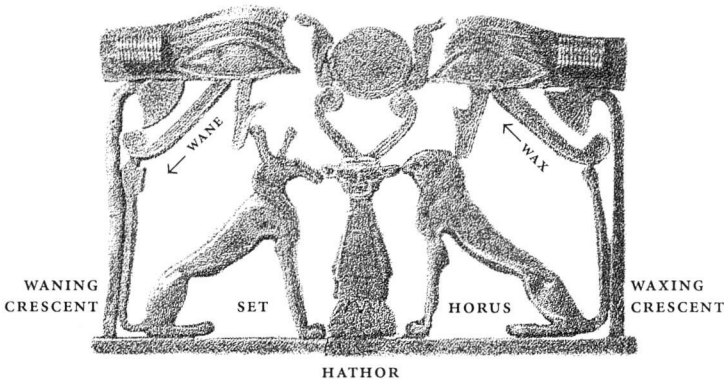
In the composition, Set figures as the first waning phase (mirroring Horus as his waxing counterpart) because the Eyes surveying their respective arcs *embody* the two full moons. Hathor between them – with two opposing horns to reflect the mirror-images of the opposing crescents – represents the two dark nights between crescents when the moon ‘remains’ in the underworld realm of the goddess. The winged disk above her configures a complete lunation.

Thus the composition of Horus confronting Set may be reviewed as a depiction of ‘first waxing spectre’ figuratively complementing ‘first waning spectre’ – with opposing Eyes of Horus and Ra surveying their respective arcs of lunation from the pinnacle of the cycle: that of Horus oriented as ‘rising to its brightest light’ (first full moon) and that of Ra ‘descending from its brightest point’ (second full moon).

OPPOSING ARCS OF LUNATION

WANING OR SECOND FULL MOON
EYE OF RA

WAXING OR FIRST FULL MOON
EYE OF HORUS



Few scholars realize that there are two apparent full moons every lunation or that the cycle begins with two dark nights without any moon in the sky. Thus the lunar key to ancient myth has remained obscure. Neither have they recognized that the seven focal gods represent the seven focal phases; nor that the alphabet is a serial mnemonic of lunar cycle.

DAY	LUNAR PHASE	OLYMPIAN	EGYPTIAN	LETTER	
1	<i>no moon</i>	ARTEMIS	ISIS	Α	1
2	<i>no moon</i>		NEPHTHYS	B	2
3	<i>waxing crescent</i>	ARES	HORUS	C	3
9	<i>waxing half</i>	HERMES	THOTH	Θ	8
15	<i>first full moon</i>	APOLLO	AMON	O	15
16	<i>second full moon</i>	ZEUS	RA	Π	16
17	<i>first waning</i>	POSEIDON	SET	Q	17
23	<i>waning half</i>	HEPHÆSTUS	PTAH	X	22
29/30	<i>crescent</i>	HADES / PLUTO	OSIRIS	double	

The figure of Horus and Set is a depiction of lunar cycle employing traditional iconography – feline trunks drawing on the lion as the symbol of half-lunation (as at Mycenæ); & elaboration – papyrus crown (*djet*) conjuring half-moon, the phase ruled by Thoth (*Djehuti*). NICK DRUMBOLIS